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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,567	08/19/2003	Tongbi Jiang	303.343US8	4912
21186 7590 04/06/2007 SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER LAMB, BRENDA A	
			ART UNIT	PAPER NUMBER
			1734	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/643,567

Applicant(s)

JIANG ET AL.

Examiner

Brenda A. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfus in view of Cahne.

Dreyfus teaches an apparatus/device which is a sheet of material having a top and bottom surface and a plurality of apertures in a desired pattern. Dreyfus teaches the material of construction of the perforated sheet includes a wide variety of metal materials including stainless steel, aluminum and the like which are known to be impervious to a printable adhesive or printable material and which is identical to the material of construction disclosed by applicant at page 9 lines 6-11 thereby inherently capable of serving as a material of construction for a semiconductor die stencil. Dreyfus fails to teach a polymer coating is applied to one side of the perforated sheet. However,

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Cahne teaches an apparatus/device which is comprised of a sheet of material having a polymer coating applied only on one side. Cahne teaches providing a coating of polytetrafluoroethylene on the sheet of material which is identical to the coating disclosed by applicant thereby inherently providing the claimed property of retarding the spread of printable adhesive. Cahne fails to teach the sheet of material having a plurality of apertures defining a desired pattern. However, it would have been obvious to modify the Dreyfus sheet of material with a plurality of apertures in a desired pattern to provide a coating only on one side of the sheet since Cahne teaches providing a coating of polytetrafluoroethylene which is the coating disclosed by applicant only on one side of the sheet of material to prevent sticking of material being treated to the recited surface. The recitation of the intended end use of the claimed apparatus/device to be aligned above a die such that the bottom surface of the claimed apparatus/device faces the die and the apertures of the claimed apparatus/device to define a desired pattern of application of printable adhesive does not structurally further limit the claimed device/apparatus over the above recited combination of references since Dreyfus in view of Cahne teaches each of the structural elements of the claimed apparatus/device. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d

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1525, 1528 (Fed. Cir. 1990). Thus claims 1, 4, 8 and 11 are obvious over the above recited references.

Claims 2-3 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfus in view of Cahne and Johnson.

Dreyfus and Cahne are applied for the reasons noted above. Dreyfus teaches the material of construction of the perforated sheet includes a wide variety of metal materials including stainless steel, aluminum and the like. Applicant has indicated at page 9 lines 12-22 of the instant specification that the surface tension of most polymers is one order less than that of metals or ceramics. Therefore, it would have been obvious to construct the Dreyfus device/apparatus from aluminum since Johnson teaches aluminum is a preferred material of construction for used in a similar environment as Dreyfus for the obvious advantage of using aluminum, cost and light weight and the surface tension of the materials in the modified Dreyfus device/apparatus within the scope of claims 2-3 and 9-10 given the disclosure that polymers have a surface tension one order less than that of metal.

Claims 2-3 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyfus in view of Cahne and Chen.

Dreyfus and Cahne are applied for the reasons noted above. Dreyfus teaches the material of construction of the perforated sheet includes a wide variety of metal materials including stainless steel, aluminum and the like. Applicant has indicated at page 9 lines 6-22 of the instant specification that the surface tension of most polymers is one order less than that of metals or ceramics and given the disclosure of the surface

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tension of stainless steel versus polytetrafluoroethylene. Therefore, it would have been obvious to construct the Dreyfus device/apparatus from stainless steel since Chen teaches stainless steel is a preferred material of construction for used in a similar environment as Dreyfus for the obvious advantage of using stainless steel, increased working life as a result of corrosion resistance, and the surface tension of the materials in the modified Dreyfus device/apparatus are within the scope of claims 2-3 and 9-10 given the disclosure that polytetrafluoroethylene polymers have a surface tension one order less than that of stainless steel metal.

Claims 1-4 and 8-11 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-13, 43 and 46-49 of co-pending Application No. 10/630,544.

The obviousness-type double patenting rejection as set forth in the office action mailed 8/23/2005 is maintained.

Claims 1-4 and 8-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,607,599 (Jiang et al) of claims 1-15 of U.S. Patent No. 6,599,365 Jiang et al).

The obviousness-type double patenting rejection as set forth in the office action mailed 8/23/2005 is maintained.

Claims 1-4 and 8-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-77 of U.S.

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Patent No. 6,669,781 (Jiang et al) of claims 1-24 of U.S. Patent No. 6,641,669 (Jiang et al).

The obviousness-type double patenting rejection as set forth in the office action mailed 8/23/2005 is maintained.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed 1/16/2007 have been fully considered but they are not persuasive.

Applicant's argument that Dreyfus and Cahne are non-analogous art is found to be non-persuasive. Applicant's claims are directed to a sheet of material having a top surface and bottom surface, the sheet of material being constructed from a material which is impervious to a printable coating which is an adhesive applied thereto, a plurality of apertures in a sheet of material defining a desired pattern and a coating applied only to the bottom surface of the sheet to retard spreading of printable coating which is an adhesive. Contrary to applicant's arguments, it is deemed that the combination of Dreyfus and Cahne teaches every positively claimed element of the apparatus and therefore deemed to be analogous art.

Applicant's argument that the combination of Cahne and Dreyfus would fail to yield a stencil wherein the printable fluid is applied to the stencil without obstruction of the flow of the printable fluid through the apertures of the die apertures of the stencil since Cahne process would result in the coating applied to the bottom surface of the sheet filling the apertures of the sheet is found to be non-persuasive. Applicant's

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argument implies that Cahne must teach the method step of applying the coating of polytetrafluoroethylene to the bottom surface of the apertured stencil without filling the apertures of the stencil whereas the issue with respect to the apparatus/stencil is whether the combination of prior art references, Cahne and Dreyfus, teach the obviousness of arranging a layer of coating of polytetrafluoroethylene, a coating which retards spreading of printable material, on only one surface, bottom surface, of the stencil material without the coating layer obstructing the flow of material through the stencil. The examiner maintains that it would have been obvious to modify the Dreyfus sheet of stencil material by providing a coating only on one side of the stencil sheet since Cahne teaches providing a coating of a polymeric material, polytetrafluoroethylene which is within the scope of the coating disclosed by applicant, only on one side of the sheet of material to prevent sticking of material being treated to the coated surface. The recitation of the intended end use of the claimed apparatus/device to be aligned above a die such that the bottom surface of the claimed apparatus/device faces the die and the apertures of the claimed apparatus/device to define a desired pattern of application of printable adhesive does not structurally further limit the claimed device/apparatus over the above recited combination of references since Dreyfus in view of Cahne teaches each of the structural elements of the claimed apparatus/device. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is,


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not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.


Brenda A Lamb
Examiner
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